

The Complete Classroom: Moving and Learning



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Objectives

- Participants will
 - Understand why movement is so important
 - Demonstrate ways to prepare the brain to learn
 - Demonstrate Brain Breaks
 - Demonstrate how to incorporate movement into teaching a lesson
 - Demonstrate Movement Based Review Strategies

ADGENDA

- All About the Brain
- Preparing the Brain to learn
- Brain Breaks
- Kinesthetic Class
- Review Strategies
- Final Quiz

Why Movement?

- The brain is like a muscle!!
- Brain needs to be challenged both physically and cognitively.
- Integrates and anchors new information into our neural networks.
- Exercise is like Miracle Gro for the brain!!!



Sign In

- Please make sure that you sign the sheet to get credit
- Then go sign in by touching each letter around the room.



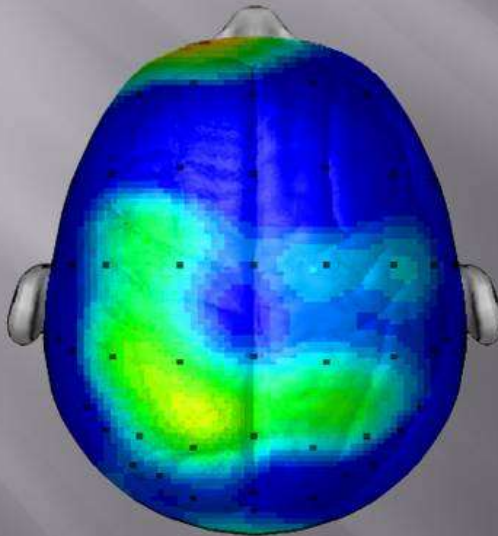
Why Movement?



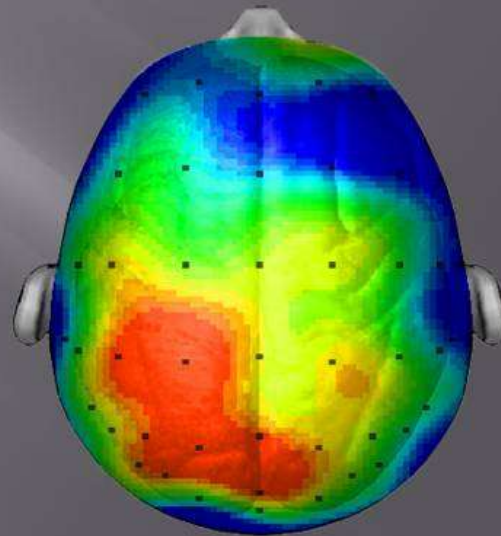
Why Movement?

**Average composite of 20 students
brains taking the same test**

BRAIN AFTER SITTING
QUIETLY



BRAIN AFTER 20 MINUTE
WALK



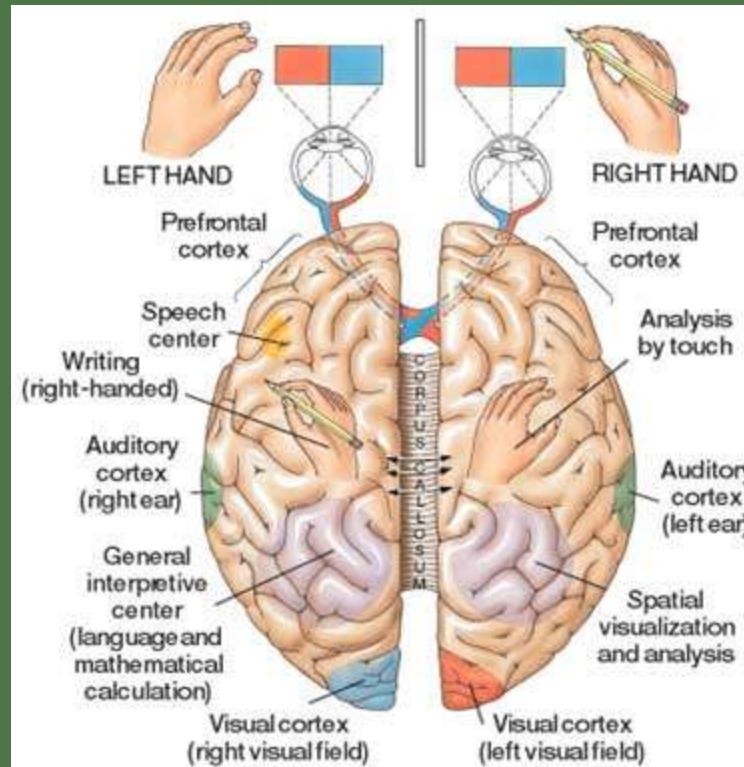
Research/scan compliments of Dr. Chuck Hillman University of Illinois

The Human Brain

- Put two fists together, this is your brain. Each hemisphere has a special job.

LEFT BRAIN FUNCTIONS

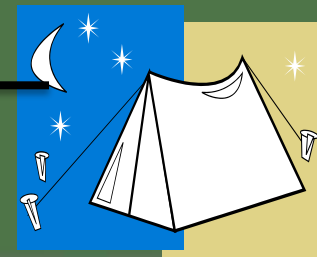
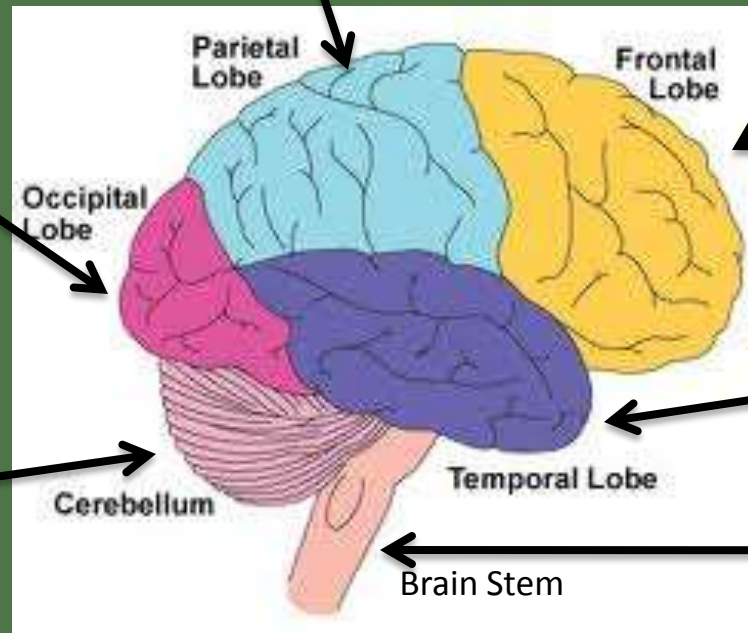
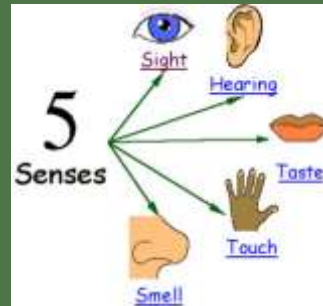
Uses logic
Detail-oriented
Facts rule
Words and language
Present and past
Math and Science
Comprehension
Order/pattern
perception
Reality-based
Forms strategies
Practical



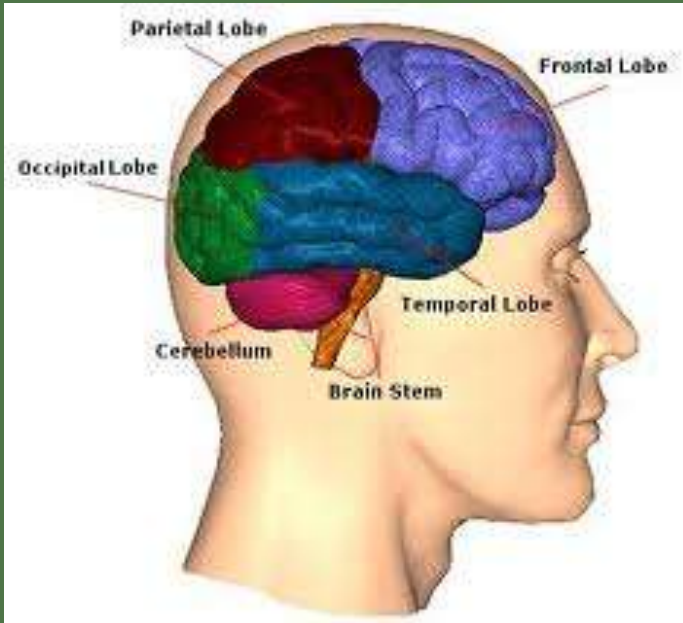
RIGHT BRAIN FUNCTIONS

Uses feeling
"Big picture"-oriented
Imagination rules
Symbols and images
Present and future
Philosophy and
Religion
Believing
Spatial perception
Impetuous

The Human Brain

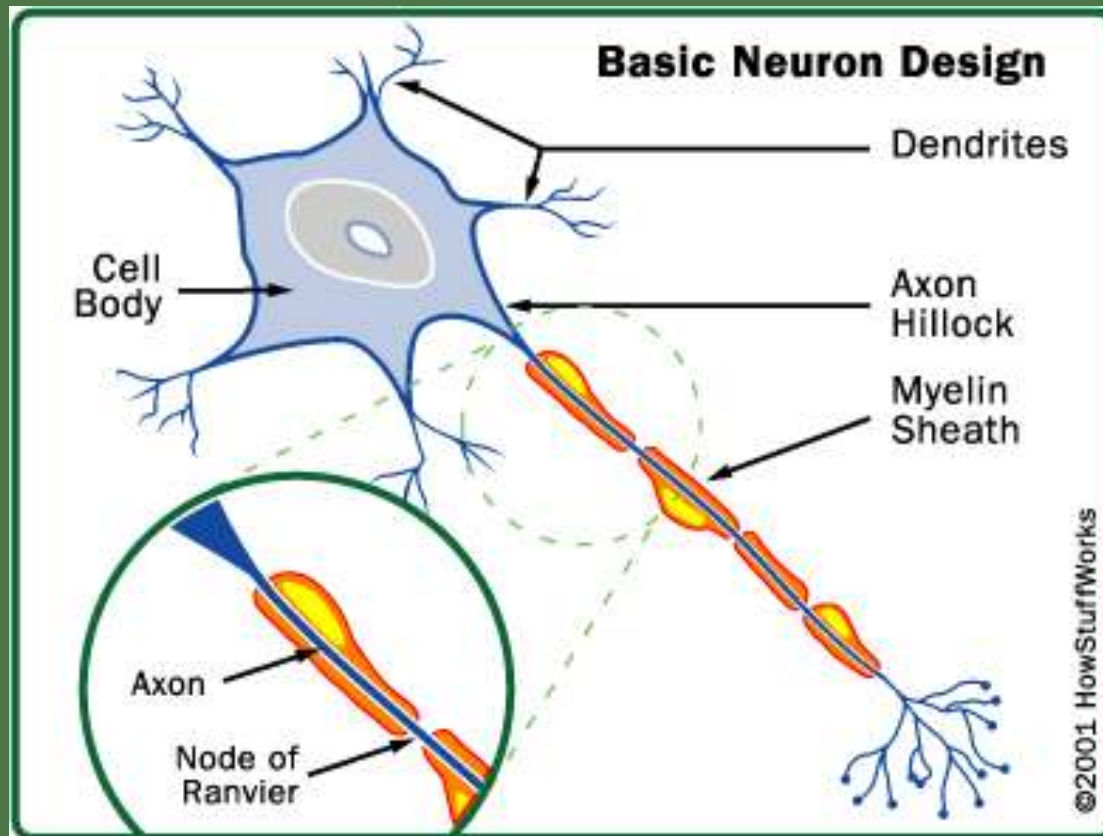


The Human Brain

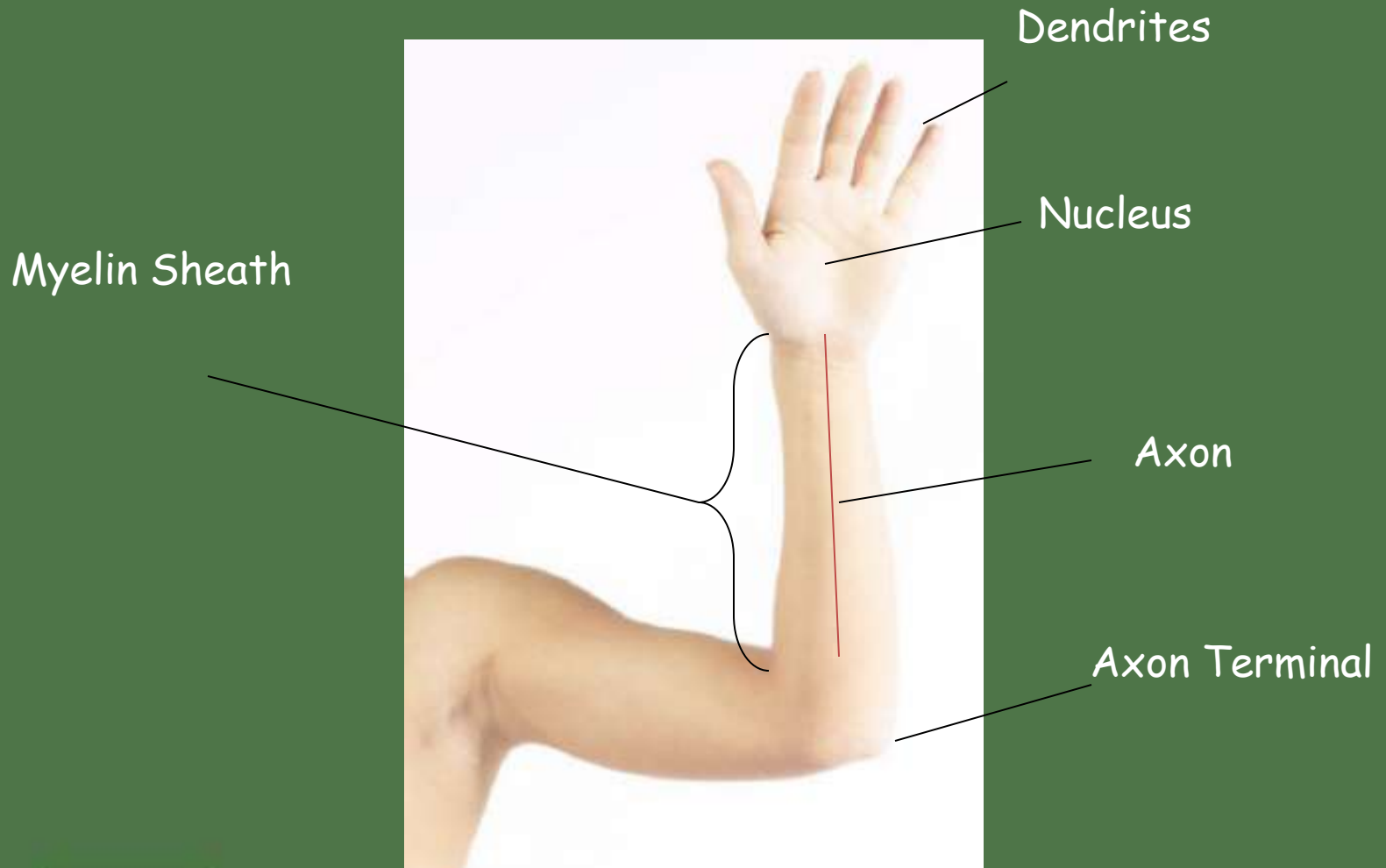


- Touch each part with your hand.
- Sing and touch each area to the tune of “One Little, Two Little, Three Little, Indians”
- Frontal, Temporal, Occipital, Parietal (3 times)
- Cerebellum, Brain Stem

The Neuron



The Neuron



Neuron Activity

- Form two lines facing each other



Dendrites



Nucleus



Axon



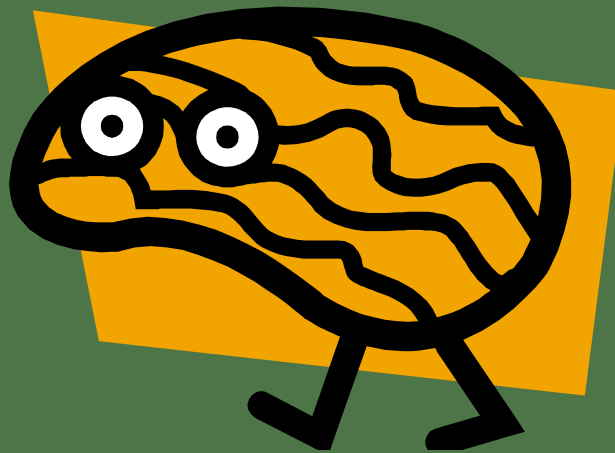
Axon



Axon Terminal

Preparing the Brain to Learn

- Exercise makes it easier for our nerves to wire together.
- Neurogenesis in hippocampus which is important for learning and memory
- BDNF (Neural Transmitter) - Increases neuronal communication
- **AEROBIC ACTIVITY GROWS NEW BRAIN CELLS!!**



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Preparing the Brain to Learn

- 85% of students are predominately kinesthetic learners.
- Memory is retrieved better when learned through movement.
- Crossing the midline forces the brain to better organize itself, and increases blood flow. Fundamental to reading, writing, and speaking



Source: Jean Blaydes-Madigan & Cindy Hess

Action Based Learning

- Blood traveling to brain acts as gasoline would in a car.
- When we sit, blood pools in our legs.
- Our attention span is equal to our age until we reach age 12.



Preparing the Brain

- Slap Count
 - Face each other with your palms up.
 - Person A should take their right hand and cross over and hit person B's right hand and say 1
 - Then person B should take their left hand and cross over and hit person A's left hand and say 2
 - Person B does the same except says 3 and 4.
 - This repeats until you reach 30.
- Variations
 - Go up by 3's 5's, or any number.
 - Start at a number and go down by another number (like start at 34 and go down by 3's)
 - Start at one and double each number
 - Each person spells their own name or any other vocabulary from class
 - Make a pattern like the left hand always adds 2 and the right hand always adds 3
 - Each person spells a word and each tries to figure out the other person's word.

Preparing the Brain

- Exercises
 - Cross Right hand to Left toe and then switch
- Rub your belly, pat your head
- Grab your nose with one hand and your ear with the other, and switch
- Rock, Paper, Scissors, Math

Preparing The Brain

- Cross Over – Right Elbow to Left Knee
- Leg Stretch – Stand Up Straight, Reach behind your back, Raise your left foot to grab your right hand.
- Partner Clap – Start off “We Will Rock You” Beat. Then try it with a partner.
- Hand Jive
- Stretching

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- **Brain Breaks**
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Purpose for Brain Breaks

- Remember
 - “if the bum in numb so is the brain”
- Brain breaks allow a student’s mind to take a breather and refresh it’s self. (Madigan, 1999)

Brain Break

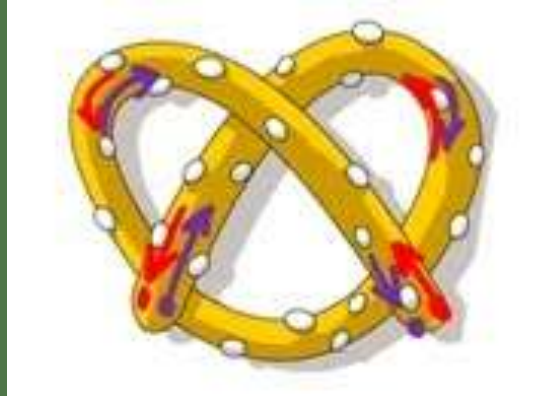
- Get a partner
- Put your right hand flat and the left point at your partners flat hand.
- On “GO” try to grasp your partners finger



Pretzel Stretch with your Fists

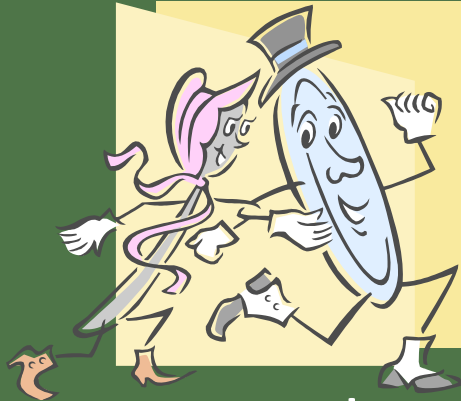
You will be stretching and outlining a pretzel with your fists.

Preparation: Draw a pretzel on the board like the one shown.



1. Stand up.
2. Put your hands clasped together in front of you to make a fist.
3. Imagine that your fist is at one of the end points of the pretzel. Now keeping your hands together, draw the outline of a pretzel. You will be stopping and reversing directions at each end point of the pretzel. Try to do this as fast as you can.
4. Now outline a huge pretzel that touches the ground and stretches to over your head in the same way as before.

Plates

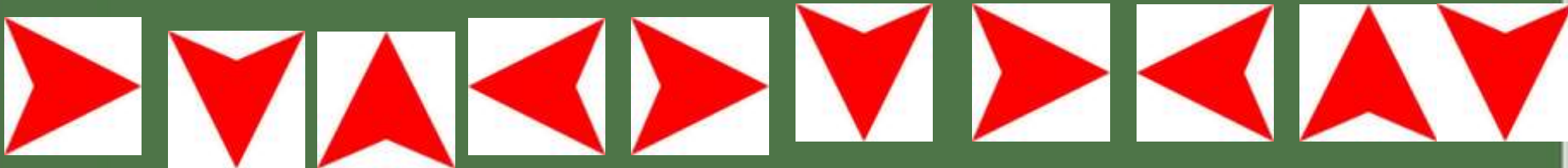
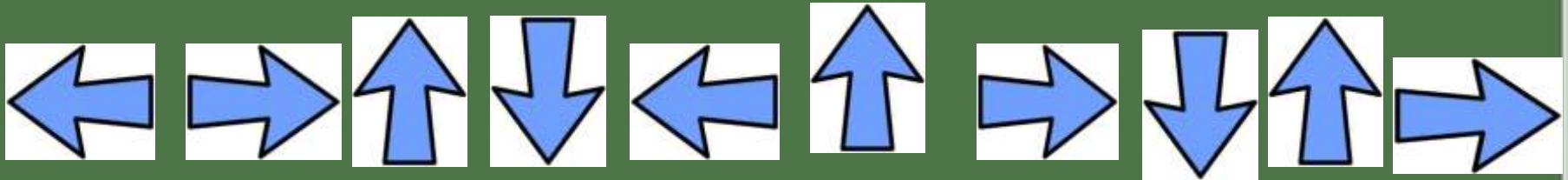


- Have kids all put a paper plate on their head. Have them move about the room. If their plate falls, they are frozen and someone else has to bend down without having their plate fall off their head and put it on a classmate's head. The object is to keep everyone in the game.
- Variation: Add Please, Thank You, You are welcome

Cross The Midline

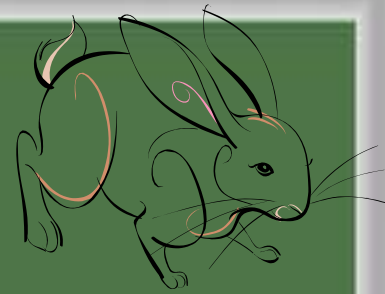
- Draw a line down the middle of your body. That's called the midline. Every time you cross over that line, you are helping connect the hemispheres in your brain.
- Put on some music and have children follow along as you cross left hand to the right side of your body, right hand to the left side of your body, cross over with your feet, etc.
- *Give children a piece of toilet paper for a streamer and have them follow along as you make figure eights in the air, circle the streamer around your body, wave it high, swing it low, and so forth.
- *Staple tissue paper streamers to a straw and have children follow along as you make cross lateral movements to music.
- Juggling

Follow Along





Animal House



- Get into groups of 5 or 6
- Form a circle
- Each person in the group become an animal and make a gesture representing that animal.
- Start clapping like “we will rock you”
- Pass the animal. Bunny rabbit calling flamingo.
- You must stay in rhythm



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.= round shape != narrow shape

?= pass overhead

,=around the waist

1) I feel good today
I feel good today.

2) What time did you go to the movie last night
What time did you go to the movie last night?

3) Where are we going
Where are we going?

4) Hey everybody look at me
Hey everybody, look at me!

5) I am so excited Our team scored a point
I am so excited! Our team scored a point!

6) Yay I am finished with the quiz
Yay! I am finished with the quiz.

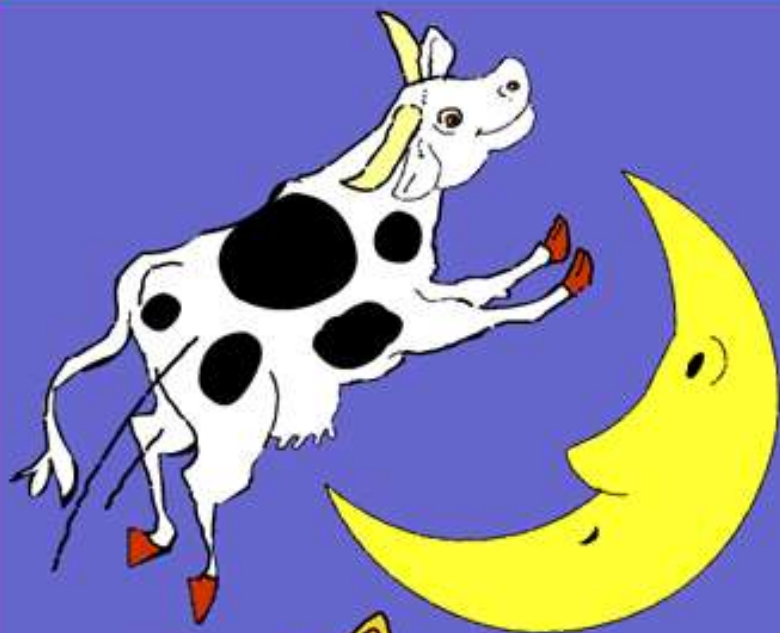
Vocabulary Word Exchange

- Take a vocabulary word out of the bucket and walk to the letters to spell out the words.
- Remember to look, touch, and say the letter.
- Come back and exchange your word in the bucket.

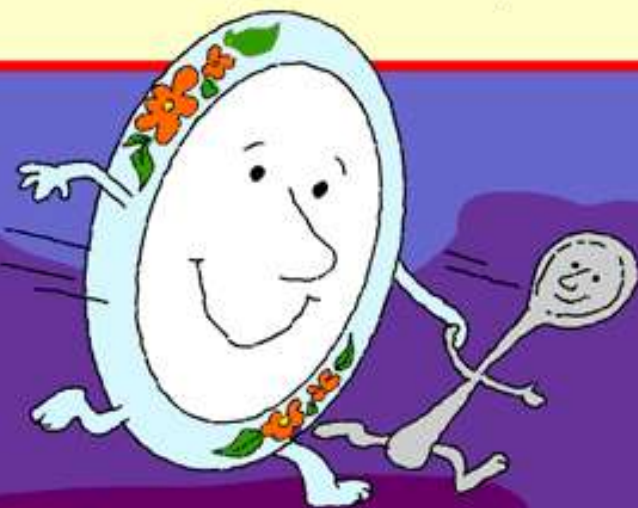


Parts of the Story

- Divide a story up and give each student a section to read.
- Have students get into a line according to the flow of the story.



Hey diddle diddle,
The cat and the fiddle,
The cow jumped over the moon;
The little dog laughed to see such fun,
And the dish ran away with the spoon.



Parts of a Business Letter

- The body becomes the parts of a business letter
 - Heading – Touch your head and say heading
 - Greeting – Show a big smile and say greeting
 - Body – give yourself a big hug and say body
 - Closing – put your hands on your knees and knock your knees together and say closing
 - Salutation – Wave good bye and say salutation
 - Signature – Click your heels together three times and say signature.



Kinesthetic Calculator

- Design a grid on the floor 4 x 4

7	8	9	+
4	5	6	-
1	2	3	x
0	.	=	/



Cluster Math

- Get into groups according to the math answer
- $2+4$
- $19-15$
- $24/8$
- $3 \times 8/4$
- $(2+2)6/12$

Number Placement and Probability

- Rules
 - Break into 4 even teams
 - Each team take turns rolling the dice
 - Two winners high score and lowest score
 - The first number may not be zero
 - 10=0 11=1 12=1
 - After you roll the dice you have 1 minute to make your decision
 - Optional: Once the number is rolled get a fitness card and do that workout

Scientific Principles

- Split into 4 equal groups
- Relay races
 - Galloping
 - Hopping
 - Jumping
 - Ball Jump
- After the races calculate the total time
 - Compare the average time. (total times/total races)
 - Calculate the fastest speed of each race.
 - Calculate the average speed of each race. $\text{Velocity} = \text{distance} / \text{time}$

Water Cycle

- Two groups (Each group has 5 jobs)
- Each group link arms and knee down to represent water
- Begin to stand to represent evaporation
- Select players to go on for steam
- Students act as clouds for condensation
- Wiggle fingers like rain
- Each person tries each position
- Repeat until everyone tries

Cardinal Directions

- The classroom is a map
- Your body is a compass follow directions to the story.

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Review

- Get into groups of 5.
- Develop a star pattern
- When the music stops who ever has a ball has to answer a question.

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Review

- Go for a walk with a partner and review 7 things that we did.

Review

- Meet and Greet Review
 - Have students move around the classroom shaking hands and saying nice to meet you, while the teacher plays music.
 - When the music stops have students partner up and high five each other
 - When the music stops teacher asks a question and the groups take a minute to discuss the answer.

Review

- Volleyball Review
 - Sit into rows of players similar to volleyball.
 - Begin by playing a volleyball game
 - In order to score a point the team needs to answer a question. If they get it wrong the other team can steal their serve.

Final Quiz

- On a sheet of paper write the answers.
 1. Describe how the body transmits signals.
 2. Draw a diagram of a neuron.
 3. What percent of learners are kinesthetic?
 4. Name three parts of the brain.
 5. Write something new you learned.

Contact Me

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- <http://jbarrype.wikispaces.com/>
 - Slide show of the ppt
 - Comment section to show and share some games you might have played.

